

REMARKS

Claims 1-43 are pending in the application. All of the claims stand rejected, and many of the claims stand objected to, for the reasons given in the office action. We have attempted to summarize the status of each claim as well as applicants' response to the rejections/objection in the Table below. Beginning with the objections, as shown in the Table, claims 13-16, 21, 36, 39, 40 and 43 have been objected to. Claims 13-16 have been objected to based on an issue with their multiple dependent format. Claims 21, 36, 39, 40 and 43 have been objected to because of their use of the expression "and/or". All of the claims objected to have been amended in an attempt to obviate the grounds for objection. Similarly, claims 3 and 28 stand rejected under 35 USC § 112, first paragraph, because of a perceived problem with the term "*a priori*". Although applicants do not agree with this rejection, claims 3 and 28 have nonetheless been amended to delete this offending term.

More substantively, all of the claims have been rejected as being either anticipated by or obvious in view of the prior art. Specifically, claims 1 and 3-10 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,366,240 (Timothy et al.). Claims 11, 12, 21-25 and 36-43 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,570,099 (DesJardins). Claim 2 stands rejected under 35 U.S.C. § 103(a) as being directed to subject matter that would have been obvious in view of the combined teachings of Timothy et al. and DesJardins. Finally, claims 13-20 and 26-35 stand rejected under 35 U.S.C. § 103(a) as being directed to subject matter that would have been obvious from the combined teachings of DesJardins and Timothy et al. (or in this case DesJardins is deemed the primary reference).

As shown in the table below, applicants respectfully disagree with the Examiner's reading of both Timothy et al. and DesJardins and, therefore, respectfully traverse the rejections under §§ 102 and 103. Should the Examiner continue to feel that the claims are not allowable over the prior art after reading the present response, he is respectfully asked to call applicant's undersigned attorney at 206.332.1384 to schedule a telephonic interview. Applicants' undersigned attorney would welcome the opportunity to interview the Examiner to resolve any outstanding issues and to otherwise bring the present application to allowance as efficiently as possible.

Claim	Rejection/Objection	Applicant's Response
<i>First Claim Set: Claims 1 – 11</i>		
1	§ 102(e) – Timothy '240	Remarks submitted explaining that Timothy lacks disclosure of practically all of the limitations recited by claim 1.
2	§ 103(a) – Timothy '240 in combination with DesJardins '099	See remarks submitted in connection with independent claim 1. Also, the combination of Timothy/DesJardins lacks a teaching or suggestion of several claim limitations.
3	§ 102(e) – Timothy '240 § 112, 1 st para. (issue with the term <i>a priori</i>)	See remarks submitted in connection with independent claim 1. Claim amended to delete the term <i>a priori</i> .
4	§ 102(e) – Timothy '240	See remarks submitted in

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		connection with independent claim 1.
5	§ 102(e) – Timothy '240	See remarks submitted in connection with independent claim 1.
6	§ 102(e) – Timothy '240	See remarks submitted in connection with independent claim 1.
7	§ 102(e) – Timothy '240	See remarks submitted in connection with independent claim 1.
8	§ 102(e) – Timothy '240	See remarks submitted in connection with independent claim 1.
9	§ 102(e) – Timothy '240	See remarks submitted in connection with independent claim 1.
10	§ 102(e) – Timothy '240	See remarks submitted in connection with independent claim 1.

Second Claim Set: Claims 11 - 20

11 & 12	§ 102(b) – DesJardins '099	Remarks submitted explaining that DesJardins lacks disclosure of “most likely range” of TDOA and FDOA values, as well as limiting search for optimal value to most likely range.
13	§ 102(b) – DesJardins '099 Objected to (issue with multiple dependent claim)	See remarks submitted in connection with claim 12. Claims amended to fix dependency
14	§ 103(a) – DesJardins '099 in combination with Timothy '240 Objected to (issue with multiple dependent claim)	See remarks submitted in connection with claim 12.

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		Claims amended to fix dependency
15	§ 103(a) – DesJardins '099 in combination with Timothy '240 Objected to (issue with multiple dependent claim)	See remarks submitted in connection with claim 12. Claims amended to fix dependency
16	§ 103(a) – DesJardins '099 in combination with Timothy '240 Objected to (issue with multiple dependent claim)	See remarks submitted in connection with claim 12. Claims amended to fix dependency
17	§ 103(a) – DesJardins '099 in combination with Timothy '240	See remarks submitted in connection with claim 12.
18	§ 103(a) – DesJardins '099 in combination with Timothy '240	See remarks submitted in connection with claim 12.
19	§ 103(a) – DesJardins '099 in combination with Timothy '240	See remarks submitted in connection with claim 12.
20	§ 103(a) – DesJardins '099 in combination with Timothy '240	See remarks submitted in connection with claim 12.

Third Claim Set: Claims 21 – 35

21	§ 102(b) – DesJardins '099 Objected to (issue with “and/or”)	Remarks submitted explaining that DesJardins lacks disclosure of “most likely range” of TDOA and FDOA values, as well as limiting search for optimal value to most likely range. Claim amended to remove “and/or”.
22	§ 102(b) – DesJardins '099	See remarks submitted in connection with

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		claim 21.
23	§ 102(b) – DesJardins '099	See remarks submitted in connection with claim 21.
24	§ 102(b) – DesJardins '099	See remarks submitted in connection with claim 21.
25	§ 102(b) – DesJardins '099	See remarks submitted in connection with claim 21.
26	§ 103(a) – DesJardins '099 in combination with Timothy '240	See remarks submitted in connection with claim 21. Also, the combination of DesJardins/Timothy is insufficient.
27	§ 103(a) – DesJardins '099 in combination with Timothy '240	See remarks submitted in connection with claim 26.
28	§ 103(a) – DesJardins '099 in combination with Timothy '240 § 112, 1 st para. (issue with the term <i>a priori</i>)	See remarks submitted in connection with claim 26. Claim amended to delete the term <i>a priori</i> .
29	§ 103(a) – DesJardins '099 in combination with Timothy '240	See remarks submitted in connection with claim 26.
30	§ 103(a) – DesJardins '099 in combination with Timothy '240	See remarks submitted in connection with claim 26.
31	§ 103(a) – DesJardins '099 in combination with Timothy '240	See remarks submitted in connection with claim 26.
32	§ 103(a) – DesJardins '099 in combination with Timothy '240	See remarks submitted in connection with claim 26.
33	§ 103(a) – DesJardins '099 in combination with Timothy '240	See remarks

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		submitted in connection with claim 26.
34	§ 103(a) – DesJardins '099 in combination with Timothy '240	See remarks submitted in connection with claim 26.
35	§ 103(a) – DesJardins '099 in combination with Timothy '240	See remarks submitted in connection with claim 26.
<i>Fourth Claim Set: Claims 36 – 39</i>		
36	§ 102(b) – DesJardins '099 Objected to (issue with “and/or”)	Remarks submitted explaining that DesJardins lacks disclosure of “most likely range” of TDOA and FDOA values, as well as limiting search for optimal value to most likely range. Claim amended to remove “and/or”.
37	§ 102(b) – DesJardins '099	See remarks submitted in connection with claim 36.
38	§ 102(b) – DesJardins '099	See remarks submitted in connection with claim 36.
39	§ 102(b) – DesJardins '099 Objected to (issue with “and/or”)	See remarks submitted in connection with claim 36. Claim amended to remove “and/or”.
<i>Fifth Claim Set: Claims 40 – 43</i>		
40	§ 102(b) – DesJardins '099 Objected to (issue with “and/or”)	Remarks submitted similar to those for claim 36. Claim amended to remove “and/or”.
41	§ 102(b) – DesJardins '099	See remarks submitted in

		connection with claim 40.
42	§ 102(b) – DesJardins '099	See remarks submitted in connection with claim 40.
43	§ 102(b) – DesJardins '099 Objected to (issue with “and/or”)	See remarks submitted in connection with claim 40. Claim amended to remove “and/or”.

The Rejections Under 35 U.S.C. §§ 102 and 103

Claims 1-11 stand rejected as being anticipated by Timothy et al. '240. The Examiner is respectfully urged to reconsider and withdraw the rejection. Applicants' independent claim 1, for example, is directed to a method used in locating a mobile transmitter. More specifically, the claim method is directed to a method for improving a TDOA estimate produced by cross-correlating a reference signal with a cooperating signal, wherein the reference signal is a copy of a first signal transmitted by the mobile transmitter as received at a first antenna and the cooperating signal is a copy of the first signal transmitted by the mobile transmitter as received at a second antenna. This aspect of the claimed invention is **completely missing** from Timothy's disclosure. Moreover, claim 1 recites the steps of, first, determining a most likely range of TDOA estimates, and then searching the cross-correlation results only within the most likely range of TDOA estimates. Finally, claim 1 recites the step of estimating the TDOA to be the value within the most likely range.... This concept of limiting the search of cross-correlation results to a “most likely range of TDOA estimates” is neither disclosed nor suggested by Timothy et al. If the Examiner believes otherwise, he is respectfully asked to cite to specific column and line numbers where these limitations are

disclosed. The portions of Timothy et al. cited in the Office Action seem to be inapposite with respect to the subject matter recited in applicants' claim 1. Accordingly, the rejections of claims 1 and 3-10 as being anticipated by Timothy et al. should be withdrawn.

With respect to claim 2, which has been rejected under § 103 based on the combination of Timothy et al. and DesJardins, we respectfully submit that the Examiner has not made a *prima facie* case of obviousness. We rely mostly on the comments set forth above in connection with claim 1, since the primary reference, Timothy et al., lacks any teaching or suggestion of most of the limitations recited by claim 1. In addition, however, applicants' undersigned attorney has reviewed DesJardins and does not feel that the combined teachings of Timothy et al. and DesJardins can support an obviousness rejection. If the Examiner believes that DesJardins discloses steps a, b and c of claim 1, he is respectfully asked to cite specific portions of DesJardins where such steps are disclosed. Again, we respectfully request that the rejection of claim 2 be withdrawn.

Claims 11 and 12 stand rejected under 35 U.S.C. § 102(b) as being anticipated by DesJardins, and claims 13-20 stand rejected under § 103(a) as being directed to subject matter that would have been obvious from DesJardins in combination with Timothy et al. Again, applicants respectfully disagree. First, with respect to independent claim 11, DesJardins lacks any teaching or suggestion of the steps of "determining a most likely range" of FDOA and TDOA estimates. Moreover, Desjardins lacks any teaching or suggestion of teaching of searching the cross-correlation results "only within the most likely range" of TDOA/FDOA estimates. Finally, DesJardins fails to teach or suggest the step of estimating the TDOA "to be the value within the most likely range that is associated with an optimal value of the magnitude of the cross-correlation." In the Office Action, the Examiner has

cited to various places in the DesJardins patent, but applicants' undersigned attorney cannot see how these citations teach the limitations recited in claim 11. For example, the Office Action cites column 4, lines 29-34, for the limitation of using either a time-domain cross-correlation or equivalent frequency-domain cross-spectrum process. But, column 4, lines 29-34 is merely the brief description of Figure 2 and does not seem relevant. Similarly, the concept of a "reference signal" being a copy of the first signal transmitted by the mobile transmitter, the Examiner has cited to column 9, lines 30-31 and column 3, lines 35-59, but again these do not seem relevant. With respect to claim steps a-d, we similarly disagree with the Examiner's assertion that these steps are taught by DesJardins. With regard to step a, determining a most likely range of FDOA estimates, the Examiner cites to column 5, lines 15-45, but this text relates to the process of determining correction values for the reference signals, and **not** determining a "most likely range" as recited in applicants' claim. The same comment applies with respect to step b, determining a "most likely range" of TDOA estimates as well as step c, searching the cross-correlation results "only within the most likely range." Finally, with respect to step d, the Examiner has cited column 5, line 15 to column 6, line 67, but this text does not teach or suggest the step of "estimating the TDOA to be the value within the most likely range...." Accordingly, the Examiner is respectfully urged to reconsider and withdraw the rejections of claims 11-20 as being either anticipated by DesJardins or obvious in view of the combination of DesJardins and Timothy.

Claims 21-25 and 36-43 stand rejected under 35 U.S.C. § 102(b) as being anticipated by DesJardins. Claims 26-35 stand rejected under § 103(a) as being directed to subject matter that would have been obvious from the combination of DesJardins and Timothy. We respectfully ask the Examiner to reconsider and withdraw these rejections based on the

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remarks submitted above in traversing the rejections of claims 1 through 20. There is no need to repeat those arguments here. As already discussed, neither Timothy et al. nor DesJardins teaches or suggests, alone or in combination, many of the key limitations recited by applicants' claims. For example, referring to applicants claim 46, there is no teaching or suggestion of "determining a most likely range of TDOA and FDOA estimates" as recited.

For all of the foregoing reasons, the Examiner is respectfully urged to withdraw the rejections.

CONCLUSION

A Notice of Allowance for claims 1-43 is respectfully requested.

Respectfully submitted,


Michael D. Stein
Registration No. 34,734

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Woodcock Washburn LLP
One Liberty Place - 46th Floor
Philadelphia PA 19103
Telephone: (215) 568-3100
Facsimile: (215) 568-3439